



10/035,009

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Qingsheng Zhu et al. Examiner: George Manuel  
Serial No.: 10/035,009 Group Art Unit: 3762  
Filed: December 28, 2001 Docket: 279.381US1  
Title: CARDIAC RHYTHM MANAGEMENT DEVICE WITH TRIGGERED  
DIAGNOSTIC MODE

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**COMMUNICATION CONCERNING RELATED APPLICATIONS**

Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related applications in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/411,345 6,272,377	October 1, 1999	279.159US1	CARDIAC RHYTHM MANAGEMENT SYSTEM WITH ARRHYTHMIA PREDICTION AND PREVENTION
09/850,537	May 7, 2001	279.159US2	CARDIAC RHYTHM MANAGEMENT SYSTEM WITH ARRHYTHMIA PREDICTION AND PREVENTION
09/802,316 6,678,547	March 8, 2001	279.317US1	CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN HEART RATE VARIABILITY INDICIA
09/991,522	November 20, 2001	279.400US1	TRIGGERED STORAGE OF DIAGNOSTIC DATA ASSOCIATED WITH COMPROMISED RESYNCHRONIZATION THERAPY
10/728,124	December 4, 2003	279.682US1	METHOD FOR EXCLUSION OF ECTOPIC EVENTS FROM HEART RATE VARIABILITY METRICS

COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: 10/035,009

Filing Date: December 28, 2001

Title: CARDIAC RHYTHM MANAGEMENT DEVICE WITH TRIGGERED DIAGNOSTIC MODE

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Dkt: 279.381US1

Respectfully submitted,

QINGSHENG ZHU ET AL.

By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
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(612) 373-6912

Date

Aug. 16, 2004

By

Timothy E. Bianchi

Timothy E. Bianchi  
Reg. No. 39,610

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 16 day of August,

Paula Dohm  
Name

Paula Dohm  
Signature

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**INFORMATION DISCLOSURE STATEMENT**

MS RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. § 1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

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The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

QINGSHENG ZHU ET AL.

By their Representatives,

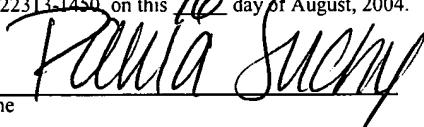
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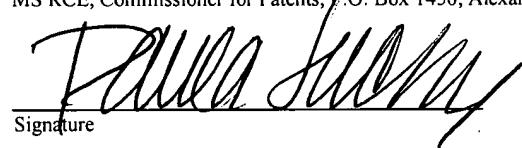
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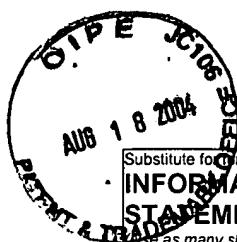
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Timothy E. Bianchi  
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Name 

Signature 



Substitute for Form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(use as many sheets as necessary)

Complete if Known

<b>Application Number</b>	10/035,009
<b>Filing Date</b>	December 28, 2001
<b>First Named Inventor</b>	Zhu, Qingsheng
<b>Group Art Unit</b>	3762
<b>Examiner Name</b>	Manuel, George

Sheet 1 of 3

Attorney Docket No: 279.381US1

**US PATENT DOCUMENTS**

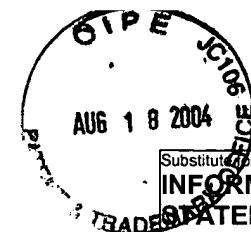
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-2002-0029000A1	03/07/2002	Ohsaki, Rie	600	500	08/24/2001
	US-2002-0072683A1	06/13/2002	Schroepel, Edward A., et al.	600	515	10/15/2001
	US-2002-0016550A1	02/07/2002	Sweeney, Robert J. et al.	600	515	05/07/2001
	US-2002-0082509A1	06/27/2002	Vanderlinde, Scott, et al.	600	510	12/26/2000
	US-2003-0060851A1	03/27/2003	Kramer, A. P., et al.	607	9	09/27/2001
	US-2003-0097155A1	05/22/2003	Stahmann, Jeffrey E. et al.	607	9	11/20/2001
	US-4,872,459	10/10/1989	Pless, Benjamin D., et al.	128	419	05/27/1988
	US-4,880,005	11/14/1989	Pless, Benjamin D., et al.	128	419 PG	05/23/1988
	US-5,291,400	03/01/1994	Gilham, J. J.	364	413.06	04/09/1992
	US-5,447,519	09/05/1995	Peterson, D. K.	607	5	03/19/1994
	US-5,466,245	11/14/1995	Spinelli, J. C., et al.	607	17	11/15/1994
	US-5,560,370	10/01/1996	Verrier, et al.	128	705	05/26/1995
	US-5,603,331	02/18/1997	Heemels, J. P., et al.	128	696	02/12/1996
	US-5,645,570	07/08/1997	Corbucci, G	607	5	06/17/1994
	US-5,682,901	11/04/1997	Kamen, P. W.	128	706	08/03/1994
	US-5,749,900	05/12/1998	Schroepel, Edward A., et al.	607	4	12/11/1995
	US-5,755,671	05/26/1998	Albrecht, P., et al.	600	516	10/05/1995
	US-5,842,997	12/01/1998	Verrier, R. L., et al.	600	518	04/30/1997
	US-5,891,044	04/06/1999	Golosarsky, Boris, et al.	600	509	01/10/1997
	US-5,893,882	04/13/1999	Peterson, D. K., et al.	607	14	12/17/1996
	US-5,921,940	07/13/1999	Verrier, R. L., et al.	600	518	11/04/1997
	US-5,941,831	08/24/1999	Turcott, R.	600	515	04/03/1998
	US-6,021,351	02/01/2000	Kadhiresan, V. A., et al.	607	19	06/25/1999
	US-6,026,320	02/15/2000	Carlson, G. M., et al.	600	510	06/08/1998
	US-6,035,233	03/07/2000	Schroepel, Edward A., et al.	600	515	01/09/1998
	US-6,042,548	03/28/2000	Giuffre, K. A.	600	483	11/14/1997
	US-6,135,970	10/24/2000	Kadhiresan, V. A., et al.	600	595	12/07/1999

**EXAMINER**

**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached



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PTO/SB/084(10-01)  
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US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Use as many sheets as necessary)

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	<b>Application Number</b>	10/035,009		
	<b>Filing Date</b>	December 28, 2001		
	<b>First Named Inventor</b>	Zhu, Qingsheng		
	<b>Group Art Unit</b>	3762		
	<b>Examiner Name</b>	Manuel, George		

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Attorney Docket No: 279.381US1

	US-6,144,878	11/07/2000	Schroepel, E. A., et al.	600	515	01/05/1900
	US-6,216,032	04/10/2001	Griffin, M. P., et al.	600	515	03/17/1999
	US-6,224,553	05/01/2001	Nevo, E.	600	437	03/09/1998
	US-6,246,909	06/12/2001	Ekwall, C.	607	9	10/02/1997
	US-6,269,263	07/31/2001	Ohnishi, N., et al.	600	518	12/09/1999
	US-6,272,377	08/07/2001	Sweeney, Robert J., et al.	600	515	10/01/1999
	US-6,358,201	03/19/2002	Childre, Doc L., et al.	600	300	03/02/1999
	US-6,390,986	05/21/2002	Curcie, David J., et al.	600	485	01/31/2000
	US-6,438,421	08/20/2002	Stahmann, J. E., et al.	607	9	12/26/2000
	US-6,453,201	09/17/2002	Daum, D., et al.	607	62	12/28/1999
	US-6,470,210	10/22/2002	Chen, Victor, et al.	600	515	04/06/2001
	US-6,480,733	11/12/2002	Turcott, R.	600	516	12/17/1999
	US-6,480,742	11/12/2002	Stahmann, Jeffrey E., et al.	607	27	12/26/2000
	US-6,571,121	05/27/2003	Schroepel, Edward A., et al.	600	515	10/15/2001
	US-6,571,122	05/27/2003	Schroepel, Edward A., et al.	600	515	10/15/2001
	US-6,668,194	12/23/2003	VanHout, W. L.	607	9	07/16/2001
	US-6,678,547	01/13/2004	Carlson, Gerrard M., et al.	600	515	03/08/2001

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of Cited Document	Class	Subclass	T <sup>2</sup>
	EP-0709112	05/01/1996	Ayers, G. M., et al.	A61N	1/365	
	WO-00/04950	02/03/2000	Alt, E., et al.	A61N	1/368	
	WO-00/38782	07/06/2000	Igel, D. A., et al.	A61N	1/368	
	WO-00/44274	08/03/2000	Pougatchev, V. I., et al.	A61B		
	WO-00/51680	09/08/2000	Padmanabhan, V., et al.	A61N	1/37	
	WO-94/06350	03/31/1994	Verrier, R. L., et al.	A61B	5/0452	
	WO-98/15319	04/16/1998	Ekwall, C.	A61N	1/365	

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

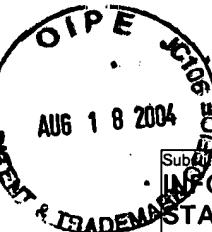
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		"Heart Rate Variability: Standards of Measurement, Physiological Interpretation, and Clinical Use", <u>European Heart Journal</u> , 17, Prepared by the Task Force of The European Society of Cardiology and The North American Society of Pacing	

**EXAMINER**

**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

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<b>Group Art Unit</b>	3762

**Examiner Name** Manuel, George

Sheet 3 of 3

Attorney Docket No: 279.381US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		and Electrophysiology; published by the American Heart Association, Inc.; European Society of Cardiology,(1996),pp. 354 - 381	
		"Heart Rate Variability: Standards of Measurement, Physiological Interpretation, and Clinical Use", <u>Circulation</u> , 93, (1996),pp. 1043-1065	
		BEHRENS, S., et al., "Effects of Amiodarone on the Circadian Pattern of Sudden Cardiac Death (Department of Vererans Affairs Congestive Heart Failure-Survival Trial of Antiarrhythmic Therapy)", <u>Am. J. Cardiol.</u> , 80(1), (July 1997),45-48	
		BEHRENS, S., et al., "Modification of the Circadian Pattern of Ventricular Tachyarrhythmias by Beta-Blocker Therapy", <u>Clin. Cardiol.</u> , 20(3), (March 1997),253-257	
		BERGER, R. D., et al., "An Efficient Algorithm for Spectral Analysis of Heart Rate Variability", <u>IEEE Transactions on Biomedical Engineering</u> , BME-33 (9), (September 1986),900-904	
		BIGGER, J. T., et al., "Correlations Among Time and Frequency Domain Measures of Heart Period Variability Two Weeks After Acute Myocardial Infarction", <u>Arrhythmias and Conduction Disturbances</u> , 69, (April 1, 1992),891-898	
		BIGGER, JR., J. T., "Spectral Analysis of R-R Variability to Evaluate Autonomic Physiology and Pharmacology and to Predict Cardiovascular Outcomes in Humans", <u>Am. J. Cardiol.</u> , 69(9), (April 1, 1992),891-898	
		BOCKER, D., et al., "Ventricular Resynchronization Therapy May Restore Autonomic Balance as Evidenced by Redicung the Low Frequency to High Frequency Autonomic Ratio in Heart Failure Patients", <u>4th International Meeting organized by the Working Group on Heart Failure of the European Society of Cardiology (Abstract)</u> , Barcelona, Spain,(June 11, 2001),1 p.	
		CRAWFORD, MICHAEL H., et al., "ACC/AHA Guidelines for Ambulatory Electrocardiography", <u>JACC</u> , Vol. 34, No. 3, Published by Elsevier Science Inc.,(September 1999),912-948	
		DYJACH, JOHN A., et al., "METHOD FOR EXCLUSION OF ECTOPIC EVENTS FROM HEART RATE VARIABILITY METRICS", <u>Application Serial No. 10/728,124</u> , Filed December 4, 2003, Attorney Docket No. 279.682US1, 21 pgs.	
		HAYANO, J., et al., "Circadian Rhythms of Atrioventricular Conduction Properties in Chronic Atrial Fibrillation With and Without Heart Failure", <u>JACC</u> , 31 (1), (January 1998),pp. 158-166	
		LAVERY, C. E., et al., "Nonuniform Nighttime Distribution of Acute Cardiac Events", <u>Circulation</u> , 96 (10), (Nov. 18, 1997),pp. 3321-3327	
		PECKOVA, M., et al., "Circadian Variations in the Occurrence of Cardiac Arrests", <u>Circulation</u> , 98 (1), (1998),pp. 31-39	
		YAMASHITA, T., et al., "Circadian Variation of Paroxysmal Atrial Fibrillation", <u>Circulation</u> , 96 (5), (Sept. 2, 1997),pp. 1537-1541	

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